

AMENDMENTS TO THE CLAIMS

Listing of Claims:

Claim 1 (currently amended): A process for preparing microcrystalline cellulose, characterized in that it comprises the steps of:

- a) preparing a pulp by repulping,
- b) pressing the pulp obtained in a) to remove water,
- c) decompacting the pulp obtained in b),
- d) feeding the pulp obtained in c) into a pre-heated reactor,
- e) cooking the pulp with the pre-heated reactor at a predetermined temperature, [[a]] time, and [[a]] pressure that are selected to obtain a pulp having a stable desired degree of polymerisation polymerization, and wherein the cooked pulp is hydrolyzed to form microcrystalline cellulose without the use of any mineral acids,
- f) partially cooling and ~~partially depressurising~~ the reactor by injecting water into said reactor,
- g) filtering the pulp obtained in f),
- h) bleaching ~~of the~~ pulp obtained in g), and
- i) drying the pulp obtained in h), and
- j) recovering said microcrystalline cellulose.

Claim 2 (currently amended): The A process according to claim 1, characterized in that in step a) the repulping is carried out at a consistency of 2 to 3%.

Claim 3 (currently amended): The A process according to claim 1 or 2, characterized in that in step e) the cooking is carried out with the addition of antioxidants.

Claim 4 (currently amended): The A process according to claim 1 ~~any one of claims 1 to 3~~, characterized in that in step e) the cooking is carried out at a temperature varying from 210° to 235°C.

Claim 5 (currently amended): The A process according to claim 1 ~~any one of claims 1 to 4~~, characterized in that in step e) the cooking time ranges between 4 and 25 minutes according to the desired degree of polymerization ~~polymerisation~~.

Claim 6 (currently amended): The A process according to claim 1 ~~any one of claims 1 to 5~~, characterized in that following the cooking step e), it further comprises a purification step.

Claim 7 (currently amended): The A process according to claim 6, characterized in that the purification step consists ~~consist~~ of filtering the pulp obtained in step e).

Claim 8 (currently amended): The A process according to claim 6, characterized in that the purification step consists ~~consist~~ of treating the pulp obtained in e) with a caustic soda solution.

Claim 9 (currently amended): The A process according to claim 1 ~~any one of claims 1 to 8~~, characterized in that following cooling step f), the process further comprises a bleaching step.

Claim 10 (currently amended): The A process according to claim 9, characterized in that the bleaching step is carried out at a temperature ranging between 60° and 120°C and at an air or oxygen pressure of 120 psi.

Claim 11 (currently amended): The A process according to claim 10, characterized in that the bleaching step is carried out in the presence of peroxide, magnesium sulphate, sodium hydroxide, diethylenetriamine penta(methylenephosphonic acid) ~~DEQUEST*~~ or a mixture thereof.

Claim 12 (currently amended): The A process according to claim 1 ~~any one of claims 1 to 11~~, characterized in that following the filtering step g), the process further comprises a homogenization ~~homogenisation~~ step to obtain non colloidal microcrystalline cellulose.

Claim 13 (currently amended): The A process according to claim 1 ~~any one of claims 1 to 12~~, characterized in that it further comprises a washing step prior to the filtration of step g).